cell when conducting this test, a nontrain crew person shall determine that he is being protected against the unexpected movement of the train either under the procedures established in part 218 of this chapter or under the provisions of paragraph (b) of this section.

(b) In order to establish the alternative means of protection under this section, (1) the train to be inspected shall be standing on a main track; (2) the inspection task shall be limited to ascertaining that the marker is in proper operating condition; and (3) prior to performing the inspection procedure, the inspector shall personally contact the locomotive engineer or hostler and be advised by that person that they are occupying the cab of the controlling locomotive and that the train is and will remain secure against movement until the inspection has been completed.

[51 FR 25185, July 10, 1986]

§221.17 Movement of defective equipment.

- (a) Whenever the marking device prescribed in this part becomes inoperative enroute, the train may be moved to the next forward location where the marking device can be repaired or replaced.
- (b) Defective rolling equipment which, because of the nature of the defect, can be placed only at the rear of a train for movement to the next forward location at which repairs can be made need not be equipped with marking devices prescribed in this part.
- (c) When a portion of a train has derailed, and a portable marking device is not available, the remainder of the train may be moved to the nearest terminal without being equipped with the marking device prescribed in this part.

APPENDIX A TO PART 221—PROCEDURES FOR APPROVAL OF REAR END MARKING DEVICES

As provided in §221.15 of this part, marking devices must be approved by the Administrator, Approval shall be issued in accordance with the following procedures:

(a) Each submission for approval of a marking device consisting of lighted elements only shall contain the following information:

- (1) A detailed description of the device including the type, luminance description, size of lens, manufacturer and catalog number, lamp manufacturer, lamp type and model number, and any auxiliary optics used.
- (2) A certification, signed by the chief operating officer of the railroad, that—
- (i) The device described in the submission has been tested in accordance with the current "Guidelines for Testing of FRA Rear End Marking Devices," copies of which may be obtained from the Office of Safety, Federal Railroad Administration, 2100 Second Street SW., Washington, DC 20590;
- (ii) The results of the tests performed under paragraph (i) of this subsection demonstrate marking device performance in compliance with the standard perscribed in 49 CFR 221.15:
- (iii) Detailed test records, including as a minimum the name and address of the testing organizations, the name of the individual in charge of the tests, a narrative description of the test procedures, the number of samples tested, and for each sample tested, the on-axis beam candela, the beam candela at the ± 15 degree points in the horizontal plane, the beam candela at the ± 5 degree points in the vertical plane, and the chromaticity coordinates, are maintained by the railroad and are available for inspection by the FRA at a designated location which is identified in the submission;
- (iv) Marking devices of this type installed in the operating environment shall consist of the same type and model of components as were used in the samples tested for purposes of this approval submission.
- (3) Unless otherwise qualified, acknowledgement of the receipt of the submission required by this section shall constitute approval of the device. The FRA reserves the right to review the test records maintained by the railroad, or to test independently any device submitted for approval under these procedures, and to withdraw the approval of such device at any time, after notice and opportunity for oral comment, if its performance in the operating environment fails to substantiate the rest results or to comply with 49 CFR 221.15.
- (b)(1) Each submission for approval of a marking device consisting of non-lighted elements or a combination of lighted and non-lighted elements shall contain the following information:
- (i) A detailed description of the device including the type of material, the reflectance factor, the size of the device, and the manufacturer and catalogue number:
- (ii) A detailed description of the external litht source including the intensity throughout its angle of coverage, and the manufacturer and catalogue number;
- (iii) A detailed description of the proposed test procedure to be used to demonstrate